

PATENT  
CUSTOMER NUMBER, 34,986  
Docket No. 01064.0011-04-000

**In The United States Patent and Trademark Office**

In re Application of: )  
Richard LEVY ) Group Art Unit: 1714  
Serial No.: 09/357,957 ) Examiner: C. Toomer  
Filed: July 21, 1999 )  
For: LUBRICANT COMPOSITIONS AND )  
METHODS )

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JAN 20 2006**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §§ 1.56 and 1.97(c)**

Applicant responds to the January 17 2006 Office communication in which the examiner required two typewritten signatures of applicant's attorney on the August 3, 2005 Invention Disclosure Statement ("IDS") in lieu of the single typewritten signature originally submitted. This response comprises a verbatim copy of the August 3, 2005 IDS, with the exception that it concludes with two typewritten signatures of applicant's attorney for the IDS, and two typewritten signatures of applicant's attorney for the Certificate of facsimile transmission.

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(c), applicant on August 3, 2005 brought to the attention of the Examiner the documents listed on the PTO 1449 (six sheets) attached thereto. Applicant re-submits these six sheets. This Information Disclosure Statement is being filed after the events recited in Section 1.97(b) but, to the undersigned's knowledge, before the mailing date of either a Final action, Quayle action, or a Notice of Allowance. Under the provisions of 37 C.F.R. § 1.97(c) the Information Disclosure Statement of August 3, 2005 was accompanied by PTO Form 2038 for payment of the fee of \$180.00 as specified by

Section 1.17(p), and applicant will not re-submit this Form 2038 unless required by the examiner.

The documents show inter alia, categories of lubricants known to the skilled artisan prior to June 7, 1995, the filing date of the parent application that forms the basis for the present application.

**Class 508, Subclass 123, lubricant alloys or elemental metals:**

Gardos et al. U. S. Patent No. 4,376,710, lubricants comprising alloys of,

Ga / In / WSe<sub>2</sub>

Mo / Nb / Cu / MoS<sub>2</sub>

MoS<sub>2</sub> / Ta<sub>2</sub>.

Lemmer U.S. Patent No. 4,050,932, lubricants comprising copper alloys.

**Class 508, Subclass 121, boron or silicon containing lubricants:**

Oldiges et al. U.S. Patent No. 5,536,422, lubricants comprising carbonate, boron nitride, silicate, and acetate compounds.

Otake et al. U.S. Patent No. 4,765,917, lubricants comprising carbonate, borate, and boron nitride.

Jain et al. U.S. Patent No. 4,104,178, lubricants comprising sodium bicarbonate, sodium pentaborate, and sodium molybdate.

Jain et al. U.S. Patent No. 3,983,042, lubricants comprising sodium bicarbonate, sodium pentaborate, and sodium molybdate.

**Class 508, Subclass 124, silicon containing lubricants:**

- Oldiges U.S. Patent No. 5,093,015, lubricants comprising copper or alloys thereof, calcium carbonate or Al, Sb, Vd, W or Ni .
- Rodriguez U.S. Patent No. 4,363,737, lubricants comprising boron nitrite, boron nitrate, and titanium dioxide.

**Class 508, Subclass 129, lubricants with inorganic compounds:**

- Lum et al. U.S. Patent No. 5,468,401, lubricants comprising dibutyltin carbonate and boron nitride.
- Rao et al. U.S. Patent No. 5,363,821, lubricants comprising boron nitride.
- Swazaki et al. U.S. Patent No. 5,346,634, lubricants comprising sodium polycarbonate,  $\text{CaCO}_3$ ,  $\text{BN}_3$ ,  $\text{SnO}$ ,  $\text{PbO}$ ,  $\text{ZnO}$ ,  $\text{CaO}$ ,  $\text{CuO}$ , and  $\text{Al}_2\text{O}_3$  .
- Whe et al. U.S. Patent No. 5,269,953, lubricants comprising graphitic oxide.
- Jacobs U.S. Patent No. 5,049,289, lubricants comprising  $\text{CaO}$ ,  $\text{MgO}$ ,  $\text{ZnO}$ ,  $\text{CaCO}_3$ ,  $\text{MgCO}_3$ , and  $\text{ZnCO}_3$  .
- King U.S. Patent No. 4,965,001, lubricants comprising antimony trioxide, antimony tetroxide, antimony pentoxide, and lead oxide.

Mendelson et al. U.S. Patent No. 4,909,951, lubricants comprising calcium thiocarbonate, calcium trithiocarbonate, and calcium tetrathiocarbonate.

Dumdum et al. U.S. Patent No. 4,908,142, lubricants comprising calcium thiocarbonate, calcium trithiocarbonate, and calcium tetrathiocarbonate.

Periard et al. U.S. Patent No. 4,575,430, lubricants comprising boron nitride.

Tubbs et al. U.S. Patent No. 4,557,839, lubricants comprising  $\text{Sb}_2\text{O}_3$ .

Jain et al. U.S. Patent No. 4,287,073, lubricants comprising sodium bicarbonate, sodium pentaborate, and sodium molybdate.

Spiegleberg U.S. Patent No. 4,096,076, lubricants comprising cobalt oxide, and diboron trioxide.

Burgess et al. U.S. Patent No. 3,931,020, lubricants comprising sodium nitrite, sodium nitrate, potassium nitrate and zinc oxide.

**Class 508, Subclass 150, lubricant alloys or metals:**

- Rao et al. U.S. Patent No. 5,663,124, low alloy steel powders with solid lubricant properties, e.g., alloys of Fe, Mn, Ni, Cu, and, C.
- Strumban U.S. Patent No. 5,523,006, lubricants comprising Cu, Ni, Sn and Cu, Ni, Sn, Zn alloy.
- Weischel et al. U.S. Patent No. 5,397,485, lubricants comprising alloy particles of Pb/Cu, Pb/Cu/Zn or Sn or other metals.
- Sugimara et al. U.S. Patent No. 5,013,464, lubricants comprising Ga or alloys of Ga with at least one of In, Zn, Sn, or Al.
- Buran et al. U.S. Patent No. 4,756,841, lubricants comprising a coating of Ni/CrC or Mo/Ni alloy and at least one of Cr, CrC or MoC.
- Jamison U.S. Patent No. 4,647,386, lubricants comprising Nb, Ta or W or alloy thereof with at least one of Cr, Vd, Mo, W or Fe.
- Palmer U.S. Patent No. 4,541,984, lubricants comprising a coating of alloys of Zr, Yt, Ti, Ce, Co, Ni, Cr and compounds or mixtures thereof.
- Hurst U.S. Patent No. 4,076,637, lubricants comprising alloy powders based on Sn, Bi Cd, Pb, In or Ga.
- Burke U.S. Patent No. 3,994,697, lubricants comprising metal alloys for combining with MoS<sub>2</sub> for lubricating an engine.

De Hart et al. U.S. Patent No. 3,939,081, lubricants comprising a chrome alloy of carbon steel.

**Class 508, Subclass 154, lubricant inorganic compounds:**

Forster U.S. Patent No. 5,507,981, lubricants comprising coatings of Cs, MoO<sub>4</sub>, SO<sub>4</sub>, WO<sub>4</sub>, WOS<sub>3</sub>, or MoO<sub>3</sub>, and CsOH.

**Class 508, Subclass 178, lubricant metal oxide compounds:**

Kojima U.S. Patent No. 5,156,756, lubricants comprising SnO and/or TiO<sub>2</sub> powder.

**Class 508, Subclass 180, lubricant carbonate compounds:**

Waynick U.S. Patent No. 4,986,923, lubricants comprising Group IA or Group IIA carbonates in grease.

Nader et al. U.S. Patent No. 5,456,848, lubricants comprising cesium carbonate.

Olsen et al. U.S. Patent No. 5,308,514, lubricants comprising calcium carbonate.

Ito et al. U.S. Patent No. 5,244,587, lubricants comprising calcium carbonate.

Chiddick et al. U.S. Patent No. 5,173,204, lubricants comprising calcium carbonate, magnesium carbonate and lead carbonate.

Waynick U.S. Patent No. 5,158,694, lubricants comprising Group IA or Group IIA carbonates.

Wainright U.S. Patent No. Re 31,611, lubricants comprising Group IIA carbonates.

Sternlieb U.S. Patent No. 4,143,423, lubricants comprising sodium, or potassium carbonate, citrate, acetate, bicarbonate, trihydrate, and citrate dihydrate.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claims in the application and applicant determines that the cited documents do not constitute "prior art" under United States law, applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

Respectfully submitted,

THE LAW OFFICES OF ROBERT J. EICHELBURG

Dated: January 20, 2006

By: /Robert J. Eichelburg, Reg. No. 23,057/  
Robert J. Eichelburg

**CERTIFICATE OF FACSIMILE TRANSMISSION PURSUANT TO 37 C.F.R. § 1.6 (d)**

I hereby certify that this correspondence, including the attached six sheets of PTO Form 1449 is being transmitted pursuant to 37 C.F.R. § 1.6(d) by facsimile to The United States Patent and Trademark Office, Central Fax Number (571) 273-8300 on the date indicated below.

Dated: January 20, 2006

By: /Robert J. Eichelburg, Reg. No. 23,057/  
Robert J. Eichelburg



FORM PTO-1449 Page 1 of 6					ATTY. DOCKET NO. 01064.0011-04-000			
<b>INFORMATION DISCLOSURE STATEMENT</b>					APPLICANT <b>Richard LEVY / Ser.No. 09/357,957</b>			
<i>(Use several sheets if necessary)</i>					FILING DATE July 21, 1999		GROUP ART UNIT 1714	

  

*Examiner's Initials	US	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING I IF APPRC
	US	4,376,710	3/15/83	Gardos et al.	508	123	
	US	4,050,932	9/27/77	Lemmer	508	123	
	US	4,765,917	8/23/88	Otaki et al.	508	121	
	US	4,104,178	8/1/78	Jain et al.	508	121	
	US	3,983,042	9/28/76	Jain et al.	508	121	
	US	5,093,016	3/3/92	Oldiges	508	124	
	US	4,363,737	12/14/82	Rodriguez	508	124	

  

*Examiner's Initials	US	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSL YES

  

OTHER INFORMATION (Including Author, Title, Date, Pertinent Pages, Etc.)							

  

EXAMINER	DATE CONSIDERED
<p><small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through cita in conformance and not considered. Include copy of this form with next communication to applicant.</small></p>	

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	US	5,437,802	8/1/95	Kurashi et al.	508	129	
	US	5,363,821	11/15/94	Rao et al.	508	129	
	US	5,346,634	9/13/94	Sawazaki et al.	508	129	
	US	5,269,953	12/14/93	Whewell	508	129	
	US	5,049,289	1/19/93	Jacobs	508	129	
	US	4,965,001	10/23/90	King	508	129	
	US	4,909,951	3/20/90	Mendelson et al.	508	129	
	US	4,908,142	3/13/90	Dumdum et al.	508	129	
	US	4,575,430	3/11/86	Periard et al.	508	129	

  

*Examiner's Initials	US	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
							YES	NO

  

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	US	4,557,839	12/10/85	Tubbs et al.	508	129	
	US	4,287,073	9/1/81	Jain et al.	508	129	
	US	4,096,076	6/20/78	Spiegleberg	508	129	
	US	5,397,485	3/14/95	Weischel et al.	508	150	
	US	5,013,464	6/12/89	Sugimura et al.	508	150	
	US	4,756,841	7/12/88	Buran et al.	508	150	
	US	4,647,386	3/3/87	Jamison	508	150	
	US	4,541,984	9/17/85	Palmer	508	150	
*Examiner's Initials		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES    NO
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	US	4,076,637	2/28/78	Hurst	508	150	
	US	3,994,697	11/30/76	Burke	508	150	
	US	3,939,081	11/20/76	DeHart et al.	508	150	
	US	5,156,756	10/20/92	Kojima	508	178	
	US	5,456,848	10/10/95	Nader et al.	508	180	
	US	5,308,514	5/3/94	Olson et al.	508	180	
	US	5,244,587	9/14/93	Ito et al.	508	180	
	US	5,173,204	12/22/92	Chiddick et al.	508	180	

  

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*Examiner's Initials	US	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE, IF APPROPRIATE
	US	5,158,694	2/28/78	Hurst	508	150	
	US	3,994,597	11/30/76	Burke	508	150	
	US	5,156,756	10/20/92	Kojima	508	178	
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	US	5,308,514	5/3/94	Olson et al.	508	180	
	US	5,244,587	9/14/93	Ito et al.	508	180	
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	US	5,158,694	10/27/94	Waynick	508	180	
	US	RE 31,611	6/26/84	Wainright	508	180	
	US	4,143,423	3/13/79	Steinlieb	508	180	
	US	4,986,923	1/22/91	Waynick	508	180	

  

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**Ser. No. 09/357,957. Dkt. No.: 01064.0011-04-000****DATE:** 1/20/2006**PAGES:** 15**TO:** Hon. Commissioner for**FROM:****COMPANY:** U. S. Patent & Trademark**FAX #:****FAX #:** 1016868 1 (571)**VOICE #:****RECEIVED**  
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**MESSAGE:**

Sir:

Please acknowledge by return facsimile, receipt of the Information Disclosure Statement and six sheets of PTO Form 1449 that follow in response to the January 17, 2006 Office communication.

Respectfully,

Robert J. Eichelburg  
Reg. No. 23,057